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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,985	04/06/2001	Ronald O' Connell	PD7323US	5185
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KUSNER & JAFFE HIGHLAND PLACE SUITE 310 6151 WILSON MILLS ROAD HIGHLAND HEIGHTS, OH 44143			CANTELMO, GREGG	
			ART UNIT	PAPER NUMBER
			1745	
DATE MAILED: 05/03/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No. 09/827,985	Applicant(s) CONNELL, RONALD O'	
	Examiner Gregg Cantelmo	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8,9 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 12, 2004 has been entered.

Response to Amendment

2. In response to the amendment received April 12, 2004:
- a. Claims 1-7, 10, 11, and 18 have been cancelled. Claims 8, 9 and 12-17 are pending;
 - b. The prior art rejections of record stand as modified below in response to the claim amendments.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 8 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0081491 (Gross).

Gross discloses a lithium ion battery comprised of: a plurality of generally planar cell sections each cell section having at least one flat metallic current collector tab (22 and 26) extending therefrom, said cell sections being stacked one on another to form a cell body having a planar upper surface and a planar lower surface; a plurality of said current collector tabs being aligned in spaced apart relationship between said upper planar surface and said lower planar surface and extending from one side of the cell body, each of said tabs having respective free ends 28 and 30 and respective intermediate portions 22 and 26, the free ends 28 are connected to each other and the free ends 30 are connected to each other but the intermediate portions 22 and 26 of the tabs are unattached to each other when said tabs are stacked together at a location offset from the cell body, such that the tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said tab ends disposed adjacent said one side of the cell body (Figs 6-8 as applied to claim 8).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end

product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

Gross discloses a lithium ion battery comprised of: a plurality of generally planar cell sections, each cell section having at least one flat metallic current collector tab extending therefrom, said cell sections being stacked one on another to form a cell body, a plurality of said cathode current collector tabs 26 being aligned and extending from one side of the cell body, each of the current collector tabs 26 having an intermediate end 26 and a free end 30 (Fig. 7) a plurality of said anode current collector tabs 22 being aligned and extending from one side of the cell body, each of the current collector tabs 22 having an intermediate end 22 and a free end 28 (Fig. 6), a cathode tab weldment (interface between cathode tab ends 30 and leads 34) joining the free ends 30 of the cathode current collector tabs 26 but leaving the intermediate ends 26 of the current collector tabs unattached to each other (Fig. 7), said cathode current collector tabs 26 are welded together at a location offset from the cell body, such that the cathode current collector tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said cathode tab ends disposed adjacent said one side of the cell body, an anode tab weldment (interface between anode tab ends 28 and leads 34) joining the free ends 28 of the anode current collector tabs 22 but leaving the intermediate ends 22 of the current collector tabs unattached to each other (Fig. 6), said anode current collector tabs 22 are welded together at a location offset from the cell

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body, such that the anode current collector tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said anode tab ends disposed adjacent said one side of the cell body (Fig. 6 as applied to claim 14).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

Response to Arguments

5. Applicant's arguments with respect to claims 8 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

6. Claims 8 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2000-311665-A (JP '665).

JP '665 discloses a lithium ion battery comprised of: a plurality of generally planar cell sections (Fig. 4), each cell section having at least one flat metallic current collector tab (5a, and 5b) extending therefrom, said cell sections being stacked one on

another to form a cell body having a planar upper surface and a planar lower surface; a plurality of said current collector tabs 5a and 5b being aligned in spaced apart relationship between said upper planar surface and said lower planar surface (Figs. 2-4) and extending from one side of the cell body, each of said tabs having a free end and an intermediate portion, the free ends of the tabs are connected but the intermediate portions of the tabs are unattached to each other when said tabs are stacked together at a location offset from the cell body (Fig. 10), such that the tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said tab ends disposed adjacent said one side of the cell body (Fig. 5b as applied to claim 8).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

JP '665 discloses a lithium ion battery comprised of: a plurality of generally planar cell sections (Fig. 4), each cell section having at least one flat metallic current collector tab (5a, and 5b) extending therefrom, said cell sections being stacked one on another to form a cell body, a plurality of said cathode current collector tabs 5a being aligned and extending from one side of the cell body, each of the current collector tabs

5a having an intermediate end and a free end (Figs. 2-4) a plurality of said anode current collector tabs 5b being aligned and extending from one side of the cell body, a cathode tab weldment (interface between tab ends 5a and leads 11) joining the free ends of the cathode current collector tabs but leaving the intermediate ends of the current collector tabs unattached to each other (Fig. 10), said cathode current collector tabs are welded together at a location offset from the cell body, such that the cathode current collector tabs are folded into a generally U-shaped configuration (Fig. 5b) with said unattached intermediate portions forming a smooth layered generally U shaped structure with said cathode tab ends disposed adjacent said one side of the cell body, an anode tab weldment (interface between anode tab ends and leads 11) joining the free ends of the anode current collector tabs 5b but leaving the intermediate ends of the current collector tabs unattached to each other (Fig. 10), said anode current collector tabs 5b are welded together at a location offset from the cell body, such that the anode current collector tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said anode tab ends disposed adjacent said one side of the cell body (Fig. 5B as applied to claim 14).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end product itself). Furthermore the claim fails to provide sufficient structural differentiation

between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

Response to Arguments

7. Applicant's arguments with respect to claims 8 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

8. Claims 8 and 14 are rejected under 35 U.S.C. 102(a) as being anticipated by EP 1045466 A1 (EP '466).

EP '466 discloses a lithium ion battery comprised of: a plurality of generally planar cell sections (Fig. 2), each cell section having at least one flat metallic current collector tab (101a and 102a) extending therefrom, said cell sections being stacked one on another to form a cell body having a planar upper surface and a planar lower surface; a plurality of said current collector tabs 101a and 102a being aligned in spaced apart relationship between said upper planar surface and said lower planar surface (Fig. 2) and extending from one side of the cell body, each of said tabs having a free end and an intermediate portion, the free ends of the tabs are connected but the intermediate portions of the tabs are unattached to each other when said tabs are stacked together at a location offset from the cell body (Fig. 2), such that the tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a

smooth layered generally U shaped structure with said tab ends disposed adjacent said one side of the cell body (Fig. 2 as applied to claim 8).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

EP '466 discloses a lithium ion battery comprised of: a plurality of generally planar cell sections (Fig. 2), each cell section having at least one flat metallic current collector tab (101a and 102a) extending therefrom, said cell sections being stacked one on another to form a cell body, a plurality of said cathode current collector tabs 102a being aligned and extending from one side of the cell body, each of the current collector tabs 102a having an intermediate end and a free end (Figs. 2-4) a plurality of said anode current collector tabs 101a being aligned and extending from one side of the cell body, a cathode tab weldment (interface between cathode tab ends and lead) joining the free ends of the cathode current collector tabs but leaving the intermediate ends of the current collector tabs unattached to each other (Figs. 1 and 2), said cathode current collector tabs are welded together at a location offset from the cell body, such that the cathode current collector tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped

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structure with said cathode tab ends disposed adjacent said one side of the cell body, an anode tab weldment (interface between anode tab ends and leads) joining the free ends of the anode current collector tabs but leaving the intermediate ends of the current collector tabs unattached to each other (Figs. 1 and 2), said anode current collector tabs are welded together at a location offset from the cell body, such that the anode current collector tabs are folded into a generally U-shaped configuration with said unattached intermediate portions forming a smooth layered generally U shaped structure with said anode tab ends disposed adjacent said one side of the cell body (Figs. 1 and 2 and paragraphs [0004]-[0005] and [0017]-[0019] as applied to claim 14)

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

Response to Arguments

9. Applicant's arguments with respect to claims 8 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

10. Claims 8 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by JP 2000-311713-A (JP '713).

JP '713 discloses a lithium ion battery comprised of: a plurality of generally planar cell sections each cell section having at least one flat metallic current collector tab (22 and 26) extending therefrom, said cell sections being stacked one on another to form a cell body having a planar upper surface and a planar lower surface; a plurality of said current collector tabs being aligned in spaced apart relationship between said upper planar surface and said lower planar surface and extending from one side of the cell body, each of said tabs having respective free ends and respective intermediate portions, the free ends are connected to each other but the intermediate portions of the tabs are unattached to each other when said tabs are stacked together at a location offset from the cell body, such that the tabs are folded into a generally U-shaped configuration and configured with a slight downward bend from the lowest cell in the stack wherein such arrangement reduces the stress exerted on the current collectors and tabs with said unattached intermediate portions forming a smooth layered generally U shaped structure with said tab ends disposed adjacent said one side of the cell body (Figs 6-8 as applied to claims 8 and 14).

With respect to the limitations of minimizing stress on the current collector tabs during folding the claims fail to quantify the stress levels and furthermore fails to have any bearing on the stress level of the final product since the limitation is to the stress level *during* folding (i.e. during the process of making the battery and not to the end

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product itself). Furthermore the claim fails to provide sufficient structural differentiation between the instant claims and prior art. Therefore the claimed invention is still held to be taught by the prior art of record.

Response to Arguments

11. Applicant's arguments with respect to claims 8 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 9, 12-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gross in view of JP '877.

The collector tabs are comprised of metallic mesh and the lead strips are of a solid metal having a width approximately equal to the width of the tabs (Fig. 8 and paragraph [0020] as applied to claim 13).

The cathode current collectors tabs and anode current collector tabs are formed of a metal mesh selected from the group consisting of copper and aluminum and the metal strips are selected from the group consisting of copper, aluminum and nickel (paragraph [0020] as applied to claim 17).

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The teachings of claims 8 and 14 have been discussed above and are incorporated herein.

The differences between Gross and the instant claims are that Gross does not teach of the lead arrangement of claims 9, 12, 15 and 16

JP '665 discloses that folding the tabs and leads in a U-shape as shown in Fig. 5b provides an electrochemical cell configuration having large electric capacitance per volume by reducing the binding space of the tab (abstract).

Fig. 3 of JP '877 shows a tab/lead weldment wherein the leads are wrapped around the tabs of the electrodes.

The motivation for configuring the metallic strip wrapped around the tab weldment is that it prevents disconnecting of the lead terminals (abstract). Securing the leads in the manner taught by JP '877 to the tab configuration of Gross would have resulted in a configuration wherein the leads would be wrapped on the side of the tab facing the cell and thus between a side of the cell and the tab (as applied to claims 9, 12, 15 and 16).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of Gross by wrapping the leads around the bent tabs of JP '665 as taught by JP '877 since it would have improved the connectivity between the leads and the tabs.

Response to Arguments

14. Applicant's arguments filed April 12, 2004 have been fully considered but they are not persuasive.

Applicant argues that none of the prior art of record teaches or suggests the lead and tab arrangement of claims 9, 15 and 16.

The Examiner respectfully disagrees.

It is held that JP '877 discloses this arrangement as discussed above.

Claim Rejections - 35 USC § 103

15. Claims 9, 12, 13 are 15-17 and are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '665 in view of the admitted prior art relied upon in the instant application and JP 2000-215877-A (JP '877).

The teachings of claims 8 and 14, with respect to JP '665, have been discussed above and are incorporated herein.

Leads 11 are attached to the tab ends (Figs. 5b and 10 as applied to claim 9).

The differences between instant claims 9, 12, 13 and 15-17 and JP '665 are that JP '665 does not appear to teach of the tab weldment arrangement of claims 9, 15 or 16; of wrapping the metallic strip around the tab weldment (claim 12), or of the tabs formed of a metal mesh selected from the group consisting of copper, aluminum and nickel and the metal strips are from the group consisting of copper, aluminum and nickel (claims 13 and 17)

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With respect to the leads (claims 9, 15 and 16):

The background art of the instant application teaches that it is known in the art to use metal strips as the lead materials (page 1, paragraph [0004]).

The skilled artisan would have recognized the motivation for using a metal material such as copper or aluminum to provides a lead having superior electrical conductivity.

With the current collectors being a metallic material such as aluminum or copper (paragraph [0010]) one of ordinary skill in the art would have found it desirable to employ the same metal material to be the leads because it would have provided the same degree of electrical conductivity from the cell to an external source which the cell is used in.

The motivation for using leads comprising a strip of metal is that it provides a high electrical conductive path from the cell .

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '665 by using a metal material as the lead since it would have provided a lead having superior electrical conductivity. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

JP '665 discloses that folding the tabs and leads in a U-shape as shown in Fig. 5b provides an electrochemical cell configuration having large electric capacitance per volume by reducing the binding space of the tab (abstract).

Fig. 3 of JP '877 shows a tab/lead weldment wherein the leads are wrapped around the tabs of the electrodes.

The motivation for configuring the metallic strip wrapped around the tab weldment is that it prevents disconnecting of the lead terminals (abstract). Securing the leads in the manner taught by JP '877 to the tab configuration of JP '665 would have resulted in a configuration wherein the leads would be wrapped on the side of the tab facing the cell and thus between a side of the cell and the tab (as applied to claims 11 and 12).

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '665 by wrapping the leads around the bent tabs of JP '665 as taught by JP '877 since it would have prevented disconnecting of the leads from the tabs.

With respect to claim 13:

JP '665 shows the leads having a width approximately equal to the width of the tabs (Fig. 10)

The difference not yet discussed is of the collector tabs comprised of metallic mesh and the lead being a solid metal (claim 13).

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The background art of the instant application teaches that it is known in the art to use metal screens or meshes of copper and aluminum for electrode current collectors. Furthermore the lead material is typically a flat metallic strip formed of copper, nickel or aluminum (page 1, paragraph [0004]).

The skilled artisan would have recognized the motivation for using a metal material such as copper or aluminum as the material for the current collectors and leads since these materials are known in the art as having superior electrical conductivity. With the current collectors being a metallic material such as aluminum or copper (paragraph [0010]) one of ordinary skill in the art would have found it desirable to employ the same metal material to be the leads because it would have provided the same degree of electrical conductivity from the cell to an external source which the cell is used in.

The motivation for using metal materials such as aluminum, copper and nickel for the tabs and leads is that it provides a high electrical conductive path from the cell .

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '665 by using metal materials such as aluminum, copper and nickel for the tabs and leads since it would have provided an high electrical conductive path from the electrodes through the leads. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945) See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

With respect to claim 17:

The background art of the instant application teaches that it is known in the art to use metal screens or meshes of copper and aluminum for electrode current collectors. Furthermore the lead material is typically a flat metallic strip formed of copper, nickel or aluminum (page 1, paragraph [0004]).

The skilled artisan would have recognized the motivation for using a metal material such as copper or aluminum as the material for the current collectors and leads since these materials are known in the art as having superior electrical conductivity. With the current collectors being a metallic material such as aluminum or copper (paragraph [0010]) one of ordinary skill in the art would have found it desirable to employ the same metal material to be the leads because it would have provided the same degree of electrical conductivity from the cell to an external source which the cell is used in.

The motivation for using metal materials such as aluminum, copper and nickel for the tabs and leads is that it provides a high electrical conductive path from the cell .

Therefore it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to modify the teachings of JP '665 by using metal materials such as aluminum, copper and nickel for the tabs and leads since it would have provided an high electrical conductive path from the electrodes through the leads. The selection of a known material based on its suitability for its intended use supported a prima facie obviousness determination in *Sinclair & Carroll Co. v. Interchemical*

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Corp., 325 U.S. 327, 65 USPQ 297 (1945) See also In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). MPEP § 2144.07.

Response to Arguments

16. Applicant's arguments filed April 12, 2004 have been fully considered but they are not persuasive.

Applicant argues that none of the prior art of record teaches or suggests the lead and tab arrangement of claims 9, 15 and 16.

The Examiner respectfully disagrees.

It is held that JP '877 discloses this arrangement as discussed above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregg Cantelmo whose telephone number is (571) 272-1283. The examiner can normally be reached on Monday to Thursday from 9 a.m. to 6 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. FAXES received after 4 p.m. will not be processed until the following business day. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregg Cantelmo
Primary Examiner
Art Unit 1745

gc

A handwritten signature in cursive script, appearing to read "Gregg Cantelmo", with a long horizontal flourish extending to the right.

April 27, 2004